REMARKS/ARGUMENT:

In the Office Action dated December 23, 2004, the Examiner has rejected claims 1-6 and 27-40 under 35 USC 101 as directed to non-statutory subject matter and under 35 USC 112, first paragraph, as not showing one skilled in the art a well established utility by which to use the claimed invention. Claims 1 and 27 are herein amended to recite that the data structure is stored in a computer readable medium, as supported at paragraph 0037 of the written description, and these rejections are seen as overcome. Claim 1 recites a data structure that itself represents a functional change in a computer in that the data structure is stored in a computer readable medium. Claim 27 recites method steps by which a computer may operate, because the data structure is embodied in a computer readable medium. Claims 2-87 and 28-40 are rejected on these grounds only for their dependence from independent claims 1 and 27 respectively.

Claims 1-53 are rejected under 35 USC 103 as obvious over Middleton in view of Chambers IV. Neither reference is seen to teach or suggest an index-instruction pair, wherein the instruction identifies an operation to be performed on a retrieved code string that is identified by the index. This aspect is recited in each independent claim. Both of the cited references have been characterized by the Applicant in the previously filed RCE, of which the remarks section is hereby incorporated by reference.

The Office Action concedes that Middleton does not teach or suggest an index identifying a particular code string to be retrieved and an instruction identifying an operation to be performed on the retrieved code string. The Office Action relies on Chambers IV for teaching an instruction identifying an operation to be performed on the code string.

The Applicant's comments made in the RCE distinguish Chambers IV from the present independent claims. The current Office Action does not address those detailed comments or the claim amendments made therein. Those arguments to distinguish Chambers IV and Middleton are hereby re-asserted by reference.

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While Chambers IV is seen to teach at col. 4, lines 47-60 that each sorted pair SP array entry includes a location of a specific data pair in a history buffer HB, that same entry is not seen to carry an instruction of what to do with the data pair or data string once it is located. That Chambers IV also outputs the located data string pair is insufficient to render any of the independent claims obvious, because those claims recite an index-instruction pair, where the instruction identifies an operation to be performed. If Chambers IV were to make obvious this aspect, it would be expected to include the following two distinct teachings:

- at least one instance where different outputs are provided from the same retrieved data string or pair of strings, the different outputs due to a different operation performed on the same retrieved data string or pair of strings; and

- that a look-up string used to locate the data string or pair of data strings also identifies the operation that distinguishes the different outputs.

Chambers IV is not seen to teach or suggest either of the above aspects. The written description of the present invention does so at Figs 14 and 15A-B, and related text. Specifically, the different index-instruction pairs of those figures may retrieve the identical code string from a library or cache, and output it with one bit altered, with one byte altered, with two bits altered, or in duplicate. The operation that drives the different outputs is identified by the instruction portion of the index-instruction pair, and the index and instruction portions are parts of the same look-up string.

The dependent claims make the index-instruction pair distinction over Chambers IV and Middleton most clearly. Specifically, the operation may be writing the retrieved code string to an output memory more than one time (claim 5) or any select number of times specifically identified by the look-up string (claims 12, 22, 36 and 49). The operation may be changing only one bit of the retrieved code string (claims 6, 30, 37, 43, 50, 56 and 59); changing more than one bit of the retrieved code string (claims 31, 38, 44, 51, 54, 57 and 60); changing a select number of bits of the retrieved code string (claims 33, 40, 46, 53), or performing an arithmetic/mathematical operation on the retrieved code string (claims 32, 39, 45, 52, 55, 58 and 61).

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The Office Action addresses none of these explicitly claimed operations with particularity, yet rejects each of them as obvious. For broader dependent claims that recite that the retrieved code string is altered according to the instruction (claims 10, 13, 20 and 23), teachings within the cited passage of Chambers IV (col. 4, lines 26-41 and Figs. 1-3) appear largely unrelated.

As neither Middleton nor Chambers IV teach or suggest the instruction feature of the claimed invention, their combination also fails to so teach and each pending claim is seen to patentably distinguish over the asserted combination of art. The Applicant has reviewed these references in detail on two occasions and still fails to see the teachings asserted by the Examiner. If any claim rejection is to be maintained, the Applicant respectfully requests a more detailed statement of specific disclosure or suggestions in the prior art that render obvious the claimed operations and their identification by a look-up string.

The Applicant believes that the claims are in condition for allowance, and respectfully requests the Examiner pass them to issue without further delay. The undersigned welcomes the opportunity to resolve any remaining formal matters via teleconference at the Examiner's discretion.
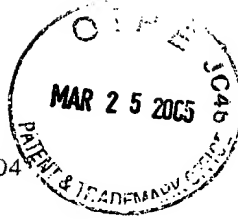
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_____March 23, 2005_____
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I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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